

COMMONWEALTH OF VIRGINIA  
STATE CORPORATION COMMISSION  
AT RICHMOND, MARCH 24, 2010

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY

CASE NO. PUE-2009-00081

For approval to implement new demand-side management programs and for approval of two rate adjustment clauses pursuant to § 56-585.1 A 5 of the Code of Virginia

ORDER APPROVING  
DEMAND-SIDE MANAGEMENT PROGRAMS

On July 28, 2009, Virginia Electric and Power Company ("Virginia Power" or "Company") filed an application with the State Corporation Commission ("Commission") for approval to implement 12 new demand-side management ("DSM") programs ("Programs" or "Portfolio") and two rate adjustment clauses to recover costs associated with the DSM Programs ("Application"). The Commission must issue a final order in this matter no more than eight months from the filing date.<sup>1</sup>

Virginia Power identified the 12 new DSM Programs as follows:

Peak-Shaving Program:

- Air Conditioner Cycling Program

Energy Efficiency Programs:

- Commercial Distributed Generation Program (also demand response)
- Curtailment Service Program (also demand response)
- Residential Lighting Program
- Low Income Program
- ENERGY STAR® New Homes Program
- Residential Heat Pump Tune-Up Program
- Residential Refrigerator Turn-In Program
- Heat Pump Upgrade Program
- Commercial HVAC Upgrade Program

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<sup>1</sup> Va. Code § 56-585.1 A 7.

- Voltage Conservation Program (AMI-Enabled)
- Commercial Lighting Program<sup>2</sup>

In addition, the Company's "implementation strategy includes the development of a reasonable Measurement & Verification ('M&V') plan to quantify the level of energy conservation that has been achieved once the Programs have been implemented."<sup>3</sup>

The two proposed rate adjustment clauses are Rider C1 (which would recover the cost of the peak-shaving program) and Rider C2 (which would recover the cost of the energy efficiency programs). The Company states that the "total of the[] cost components generate an annual revenue requirement of \$51.4 million," and that it "is not seeking approval to recover revenue reductions related to the DSM Portfolio" in this proceeding.<sup>4</sup> In addition, Virginia Power estimates that the total cost of the 12 DSM Programs in its Application would be approximately \$1.04 billion over the next 10 years.<sup>5</sup>

On August 12, 2009, the Commission issued an Order for Notice and Hearing that established the procedural requirements for this matter, scheduled a public evidentiary hearing to commence on February 16, 2010, directed Virginia Power to provide direct and published notice of this proceeding, and granted the Company a partial waiver of certain filing requirements.

The following parties filed notices of participation in this case: Office of the Attorney General's Division of Consumer Counsel ("Consumer Counsel"); Robert A. Vanderhye; the Chesapeake Climate Action Network, Appalachian Voices, and Virginia Chapter of the Sierra Club; Virginia Committee for Fair Utility Rates ("Committee"); MeadWestvaco Corporation;

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<sup>2</sup> Application at 4-5 (typeface modified). "AMI" stands for Advanced Metering Infrastructure, and "HVAC" stands for Heating, Ventilation, and Air Conditioning.

<sup>3</sup> *Id.* at 6.

<sup>4</sup> *Id.* at 9.

<sup>5</sup> *See, e.g.*, Ex. 10, Sched. 8 (Jesensky direct).

New ERA Energy; and the Apartment and Office Building Association of Metropolitan Washington ("AOBA").<sup>6</sup>

On February 12, 2010, Virginia Power filed a Motion for Leave to File Supplemental Testimonies. The Company requested leave to file supplemental testimony in order to withdraw its proposed Company-wide Voltage Conservation Program from its requested DSM Portfolio in this proceeding, and to request cost recovery for an AMI demonstration project in its northern Virginia service territory (in addition to its requested cost recovery for existing AMI demonstration projects in Midlothian and Charlottesville).<sup>7</sup>

The Commission held a public evidentiary hearing in this matter on February 16, 17, and 18, 2010.<sup>8</sup> The Commission received testimony from witnesses for the participants in this proceeding and admitted over 50 exhibits into the record. The Commission also received testimony from six public witnesses. The Commission heard closing arguments on February 25, 2010.

NOW THE COMMISSION, having considered this matter, is of the opinion and finds as follows.

#### Code of Virginia

Section 56-585.1 A 5 of the Code of Virginia ("Code") provides in part as follows:

A utility may at any time, after the expiration or termination of capped rates, but not more than once in any 12-month period,

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<sup>6</sup> During the evidentiary hearing, the Commission granted, without objection, AOBA's late-filed Notice of Participation. Tr. 11.

<sup>7</sup> The Company also reduced its proposed annual revenue requirement to \$48.4 million.

<sup>8</sup> During the evidentiary hearing, the Committee moved to dismiss the Application because of the changes resulting from Virginia Power's Motion for Leave to File Supplemental Testimonies. *See, e.g.*, Tr. 31-32, 42-43. The Commission granted the Company's Motion for Leave to File Supplemental Testimonies and denied the Committee's motion to dismiss. Tr. 43-44. Virginia Power was permitted to file its supplemental testimony in the furtherance of justice (*see, e.g.*, 5 VAC 5-20-130), and no party was unduly prejudiced thereby.

petition the Commission for approval of one or more rate adjustment clauses for the timely and current recovery from customers of the following costs:

...

b. Projected and actual costs for the utility to design and operate fair and effective peak-shaving programs. The Commission shall approve such a petition if it finds that the program is in the public interest; provided that the Commission shall allow the recovery of such costs as it finds are reasonable;

c. Projected and actual costs for the utility to design, implement, and operate energy efficiency programs, including a margin to be recovered on operating expenses, which margin for the purposes of this section shall be equal to the general rate of return on common equity determined as described in subdivision A 2 of this section. The Commission shall only approve such a petition if it finds that the program is in the public interest. . . .

Section 56-576 of the Code includes definitions for, among other things, "Demand response," "Energy efficiency program," and "Peak-shaving."

Section 56-585.1 A 7 of the Code permits the Company to defer certain costs as follows: "Any costs prudently incurred after the expiration or termination of capped rates related to other matters described in subdivisions 4, 5 or 6 shall be deferred beginning only upon the expiration or termination of capped rates. . . ."

#### Commission Rules

The Company also filed its Application pursuant to the Commission's Promotional Allowance Rules<sup>9</sup> and Cost/Benefit Rules.<sup>10</sup> The Cost/Benefit Rules, for example, provide as follows:

20 VAC 5-304-10. Purpose. The purpose of these rules is to establish the cost/benefit measures which utilities operating in

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<sup>9</sup> Rules Governing Utility Promotional Allowances, 20 VAC 5-303-10, *et seq.*

<sup>10</sup> Rules Governing Cost/Benefit Measures Required for Demand Side Management Programs, 20 VAC 5-304-10, *et seq.*

Virginia must conduct to determine whether a proposed [DSM] program is cost effective and in the public interest.

20 VAC 5-304-20. Cost/benefit measures. Utility applicants shall analyze a proposed program from a multi-perspective approach using, at a minimum, the Participants Test, the Utility Cost Test, the Ratepayer Impact Measure [("RIM")] Test, and the Total Resource Cost [("TRC")] Test. Utilities may file for approval of programs individually or as a package. However, any application which includes a package of DSM programs shall also provide an analysis of the cost/benefit of each program individually.

#### Chapters 752 and 855 of the 2009 Acts of Assembly

In accordance with Chapters 752 and 855 of the 2009 Acts of the Virginia General Assembly ("Chapters 752 and 855"), the Commission conducted a proceeding in 2009 to consider certain matters related to cost-effective energy conservation and demand response.<sup>11</sup> On November 15, 2009, in compliance with Chapters 752 and 855, the Commission transmitted its report in such proceeding to the Governor and General Assembly.<sup>12</sup> The DSM Report stated, among other things, as follows:

It is the opinion of the Commission that the RIM test, which focuses on the impact on customer rates, generally fits with the Commission's existing statutory mandate to ensure just and reasonable rates. However, the Commission also believes that the evidence demonstrates that the TRC test, which considers matters other than the direct impact on rates, is appropriate to consider, provided that the underlying assumptions are based on objective and verifiable data. Therefore, in evaluating programs under existing statutes, the Commission will normally apply the RIM test, the TRC test, or some combination of the two as appropriate. Consistent with the Commission's existing [Cost/Benefit] Rules,

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<sup>11</sup> *Commonwealth of Virginia, ex rel. State Corporation Commission, Ex Parte: In the matter of determining achievable, cost-effective energy conservation and demand response targets that can realistically be accomplished in the Commonwealth through demand-side management portfolios administered by each generating electric utility identified by Chapters 752 and 855 of the 2009 Acts of the Virginia General Assembly*, Case No. PUE-2009-00023.

<sup>12</sup> *Commonwealth of Virginia, State Corporation Commission, Report to the Governor of the Commonwealth of Virginia and the Virginia General Assembly*, "Report: Study to Determine Achievable and Cost-effective Demand-side Management Portfolios Administered by Generating Electric Utilities in the Commonwealth Pursuant to Chapters 752 and 855 of the 2009 Acts of the Virginia General Assembly" (Nov. 15, 2009) ("DSM Report").

the data from the Participant and Utility Cost tests should also be explored to fully evaluate any DSM proposal.

Most importantly, while the Commission has evaluated energy efficiency targets and benefits in the abstract herein as directed by its statutory mandate, any evaluation of specific utility DSM proposals, such as the programs proposed by [Virginia Power] in case number PUE-2009-00081, will be done on a case-by-case basis, applying all relevant statutory authority.

In sum, consistent with our general statutory duty, the Commission will give greatest weight to the RIM test, closely followed by the TRC test and rounded out by consideration of the Participant and Utility Cost tests. Ultimately, flexibility is needed to ensure that impacts on ratepayers are fully considered along with the overall public interest.<sup>13</sup>

#### DSM Programs

We approve the following DSM Programs: Residential Lighting Program;<sup>14</sup> Low Income Program; Commercial HVAC Upgrade Program; Commercial Lighting Program; and Air Conditioner Cycling Program. We find that these programs, subject to the cost, temporal, and other requirements established below, are in the public interest under § 56-585.1 A 5 of the Code. Conversely, we find that the remaining programs, as proposed and based on the record developed in this proceeding, have not been proven to be in the public interest at this time.

Consistent with the DSM Report, the Commission continues to find that we should "give greatest weight to the RIM test, closely followed by the TRC test and rounded out by consideration of the Participant and Utility Cost tests."<sup>15</sup> We also continue to conclude that "flexibility is needed to ensure that impacts on ratepayers are fully considered along with the

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<sup>13</sup> DSM Report at 32-33.

<sup>14</sup> As requested by Virginia Power, "in order to allow continuity between the [Company's current compact fluorescent light ('CFL')] price reduction program and its [DSM] Program counterpart, the Residential Lighting Program," we also grant "a brief extension of the current CFL price reduction program to coincide with the April 1, 2010 deployment of the Residential Lighting Program." Application at 4 n.5.

<sup>15</sup> DSM Report at 33.

overall public interest."<sup>16</sup> Indeed, neither the relevant statutes, nor the Commission's rules, require a formulaic analysis in evaluating the test results or the public interest in this matter.<sup>17</sup> Furthermore, we have considered the proposals as a portfolio and find that, while informative, a portfolio test in this case is not required by statute and shall not determine the outcome. We find, in this instance and based on the programs presented, that the analysis herein should focus on each individual proposal.

In this regard, we find that the programs not approved, under the current circumstances, have not been proven to be in the public interest as required by § 56-585.1 A 5 of the Code.<sup>18</sup> For example, Consumer Counsel and Staff note the low RIM scores of these programs, which also do not have significant offsetting and reliable TRC scores.<sup>19</sup> In addition, the costs of the Curtailment Service and Commercial Distributed Generation programs – as currently proposed – unreasonably exceed the value thereof and, as a result, are not in the public interest.<sup>20</sup> Moreover, the Company's proffered test results tend to be inflated in certain instances. As explained by Consumer Counsel, certain deficiencies in the Company's cost/benefit analyses "tend to overstate

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<sup>16</sup> *Id.*

<sup>17</sup> Accordingly, we reject requests in this proceeding to implement any particular numeric formula for weighting the various tests.

<sup>18</sup> *See, e.g.*, Ex. 36 (Norwood direct); Ex. 42 (Sedgley direct); Ex. 43 (Carsley direct).

<sup>19</sup> *See id.* In contrast, Consumer Counsel and Staff explain that the Residential Lighting and Commercial Lighting Programs have relatively high TRC scores to counter their RIM values. *See, e.g.*, Ex. 36 at 20 (Norwood direct); Ex. 42 at 14 (Sedgley direct).

<sup>20</sup> *See, e.g.*, Ex. 43 at 8 (Carsley direct); Tr. 737-38. Staff further asserts that the RIM score of load management programs such as these typically should be higher than traditional conservation and efficiency programs. *Id.*

projected benefits of DSM programs, deemphasize potential downside risk associated with such programs, or introduce uncertainty regarding the costs and benefits for proposed programs."<sup>21</sup>

In addition, Consumer Counsel and Staff discuss policy and public interest factors supporting the Low Income Program in light of its low RIM score, including the public policy in Chapters 476 and 603 of the 2008 Acts of Assembly ("Chapters 476 and 603") that favors this specific type of program.<sup>22</sup> In this regard, Chapters 476 and 603 state as follows:

2. That as part of its 2009 integrated resource plan developed pursuant to this act, each electric utility shall assess governmental, nonprofit, and utility programs in its service territory to assist low income residential customers with energy costs and shall examine, in cooperation with relevant governmental, nonprofit, and private sector stakeholders, options for making any needed changes to such programs.

While approving the Low Income Program, we recognize the low RIM score for this program and are concerned that the costs allocated to this program be used efficiently to produce actual benefits for low income customers. As part of the information to be provided in the M&V reports required below, the Company shall specifically identify how – and what portion of – the costs of this program are achieving actual, verifiable improvements in the homes of low income consumers. Accordingly, the M&V reports shall specifically identify the actual value provided to low income customers under this program compared against the costs thereof.

We further note that denial of curtailment and distributed generation programs in this proceeding does not foreclose the Company's continued evaluation of these types of programs. Specifically, in Case No. PUE-2007-00089, the Commission previously approved the Company's

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<sup>21</sup> Ex. 36 at 18 (Norwood direct). This analysis is consistent with the Commission's explanation in the DSM Report that "the TRC Test, which considers matters other than the direct impact on rates, is appropriate to consider, *provided that the underlying assumptions are based on objective and verifiable data.*" DSM Report at 32 (emphasis added). See also Tr. 419-421.

<sup>22</sup> See, e.g., Ex. 42 at 11-12 (Sedgley direct); Ex. 36 at 21 (Norwood direct).

experimental Commercial Distributed Generation/Load Curtailment Pilot for Large Non-Residential Customers ("CS/DG Pilot"), the operations of which extend through 2014. Indeed, Virginia Power has recently filed a motion in that case, which requests that it be permitted to continue reporting on the experimental CS/DG Pilot if the Commission does not approve the curtailment and distributed generation programs requested in the instant proceeding. Thus, although these programs are not approved for purposes of this case, the Company will be able to continue its CS/DG Pilot and continue gathering, analyzing, and preparing reports on the operation thereof.

We also find that, as requested by Virginia Power, the Air Conditioner Cycling Program is a peak-shaving program under §§ 56-585.1 A 5 and 56-576 of the Code.<sup>23</sup> Section 56-576 of the Code defines peak-shaving as "measures aimed solely at shifting time of use of electricity from peak-use periods to times of lower demand by inducing retail customers to curtail electricity usage during periods of congestion and higher prices in the electrical grid." This definition does not require the Commission to find that the Air Conditioner Cycling Program will, in all instances, shift time of use as intended but, rather, that such program is "aimed solely" at such purpose. In this regard, we find that Virginia Power has established that this program is aimed solely at shifting time of use as defined in the statute.<sup>24</sup>

Next, as reflected in the supplemental testimony filed by the Company, Virginia Power is no longer asking the Commission to approve a Company-wide Voltage Conservation Program but, rather, to approve cost recovery for three AMI-enabled voltage conservation demonstration

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<sup>23</sup> We do not, however, reach a conclusion on whether the Commercial Distributed Generation or Curtailment Service Programs – which certain participants assert have attributes of a peak-shaving program – should be treated as peak-shaving or as demand response programs, since we have not approved such programs in this proceeding.

<sup>24</sup> See, e.g., Tr. 747-52.

projects. The Company asserts that the Commission may approve, under § 56-585.1 A 5 c of the Code, cost recovery for the three demonstration projects as "design" costs for a Voltage Conservation Program that has not been approved.<sup>25</sup> That statute, however, explicitly states that the Commission shall grant approval if the Commission "finds that the *program* is in the public interest."<sup>26</sup> Accordingly, we will not approve design costs for a program that has yet to be found in the public interest.

The Company also states that the three AMI-enabled demonstration projects do not require Commission approval prior to implementation – only that approval is needed for cost recovery thereof.<sup>27</sup> In addition, Virginia Power states that it (1) has deferred demonstration project costs (which the Company designates as program design costs herein) under § 56-585.1 A 7 of the Code, and (2) will continue to do so even if the Commission does not approve the demonstrations as part of this case.<sup>28</sup> As a result, if the Company continues with its demonstration projects, it may obtain recovery of its deferred costs in one or more future rate proceedings if it can satisfy the statutory requirements attendant thereto.<sup>29</sup>

Furthermore, we conclude that the DSM Programs approved herein are in the public interest subject to the following requirements. First, these programs are approved for a period to expire on March 31, 2013. Second, these programs are approved subject to the following cost

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<sup>25</sup> See, e.g., Tr. 766.

<sup>26</sup> Va. Code § 56-585.1 A 5 c (emphasis added).

<sup>27</sup> See, e.g., Tr. 765.

<sup>28</sup> See, e.g., Tr. 767.

<sup>29</sup> Moreover, as noted above the Company currently has existing AMI demonstration projects in Midlothian and Charlottesville, in addition to its contemplated demonstration project in its Northern Virginia service territory. Thus, Virginia Power currently has AMI technology in place in Midlothian and Charlottesville, which could be used by the Company to conduct pilot programs demonstrating the use of dynamic pricing (*i.e.*, time-of-use) rate schedules. See, e.g., Tr. 697-98.

limits for expenditures through March 31, 2013: (1) \$27.4 million for the Low Income Program; (2) \$15.4 million in total for the two commercial programs (Commercial Lighting and Commercial HVAC Upgrade Programs); and (3) \$59.5 million in total for the two residential programs (Residential Lighting and Air Conditioner Cycling Programs).<sup>30</sup> Third, the Company shall file detailed M&V reports in this proceeding, with service on Staff and all parties to this case, every six months beginning October 1, 2010.

In addition, we note that the Company's proposed common costs (through March 31, 2013) have been allocated among the three cost limitations set forth above. The Company shall maintain strict and detailed identification and accounting of its common costs for the approved DSM Programs for purposes of this and future DSM proceedings.<sup>31</sup> Moreover, such costs shall be scrutinized to ensure that such expenditures are closely and definitely related to the programs approved herein and are not used, for example, to serve general marketing or public relations purposes.

Finally, Virginia Power shall implement its commitment, as discussed during the hearing, to coordinate with the participants in this case and other interested parties in evaluating the M&V results and in developing further DSM Program proposals.<sup>32</sup> For example, if the M&V data establishes that a program is not performing as expected, the Company and the participants to this case should address modifications to, or removal of, such program. These M&V reports, among other things, will provide significant information for purposes of subsequent evaluations

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<sup>30</sup> See, e.g., Ex. 4 at 1 (Filing Schedule 46B, Supp. Page 1 of 9); Ex. 51; Ex. 12 at 11 (Jesensky Supp. Sched. 7). Each of these three cost limitations may be exceeded by a maximum of 5% without being in violation of this Order.

<sup>31</sup> This information shall also be included in the M&V reports required above.

<sup>32</sup> See, e.g., Tr. 523.

as to whether certain programs warrant continuation thereof. Accordingly, we find that the M&V reports should be filed in this DSM proceeding.

Riders C1 and C2

Based on our findings herein, the Company's revised annual revenue requirement of \$48.4 million is further reduced to approximately \$28.1 million.<sup>33</sup> The Company shall file Riders C1 and C2 to comply with the findings herein. These Riders shall become effective for service rendered on and after May 1, 2010.

Accordingly, IT IS ORDERED THAT:

(1) Virginia Power's proposed DSM Programs are approved or denied as set forth herein.

(2) The Company shall forthwith file with the Commission's Division of Energy Regulation revised Riders C1 and C2, with supporting workpapers, which reflect the findings and requirements set forth herein.

(3) Riders C1 and C2 as approved herein shall become effective for service rendered on and after May 1, 2010.

(4) On or before August 1, 2010, the Company shall file its application to continue Riders C1 and C2.

(5) This matter is continued.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to all persons on the official Service List in this matter. The Service List is available from the Clerk of the State Corporation Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, Virginia 23219. A copy shall also be sent to the Commission's

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<sup>33</sup> The new estimated revenue requirement also reflects, as required by prior order in this matter, a reduction in return on common equity from 14.0% (as contained in the Company's Application) to 11.3%, and utilization of the Company's overall cost of capital to gross-up operation and maintenance expenses.

Office of General Counsel and Divisions of Energy Regulation, Public Utility Accounting, and  
Economics and Finance.

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